

WHAT IS CLAIMED IS:

1 1. A method of configuring a client computer connected to a network, wherein
2 a remote computer is capable of communicating with the client computer over the
3 network, comprising:

4 storing sets of configuration parameters in a non-volatile storage unit, wherein the
5 sets of configuration parameters instruct at least one program how to initialize operational
6 parameters and load programs into the client computer memory during a power on; and

7 for each set of configuration parameters, storing a token in the non-volatile
8 storage unit indicating access rights to the set of configuration parameters, wherein the
9 token specifies whether management entities running on the remote computer and client
10 computer can access the set of configuration parameters for that token.

1 2. The method of claim 1, wherein each token specifies at least one
2 management entity, wherein only the management entity specified in the token has access
3 rights to the set of configuration parameters associated with that token, wherein at least
4 one token specifies one management entity at the client computer and at least one other
5 token specifies one management entity at the remote computer.

1 3. The method of claim 1, wherein the at least one program is capable of
2 comprising a boot program, operating system or application program.

1 4. The method of claim 1, wherein the client computer and remote computer
2 are capable of modifying the access rights specified in the token if the access rights
3 permit the client computer or remote computer requesting the modification write access
4 to the set of configuration parameters, further comprising:

5 storing modifications in the non-volatile storage unit from the client computer or
6 remote computer to the access rights specified in the token for one set of configuration
7 parameters, wherein the modifications are made to the token if the client computer or

8 remote computer initiating the modifications is indicated in the access writes as having
9 write access.

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1 5. 4. The method of claim 3, wherein the access rights in one token specify one
2 application program in the remote computer or client program that can modify the set of
3 configuration parameters.

1 6. 8. The method of claim 1, further comprising:
2 launching a configuration program from a removable storage unit interfaced with
3 the client computer, wherein the configuration program is used to modify sets of
4 configuration parameters in the non-volatile storage unit.

1 7. 6. The method of claim 5, further comprising:
2 launching a setup program from the removable storage unit during a power on
3 when the client computer has not previously been configured;
4 receiving settings for at least one set of configuration parameters via the setup
5 program; and
6 storing the received settings in the non-volatile storage unit, wherein the
7 configuration program is launched to provide an interface to allow the user to set
8 configuration parameters for other sets of configuration parameters.

1 8. 7. The method of claim 1, wherein the sets of configuration associated with
2 the tokens include at least one of the following sets of configuration parameters:
3 network configuration parameters indicating network settings the client computer
4 uses to communicate over the network;
5 operating system configuration parameters for an operating system loaded into the
6 client computer memory;

7 application configuration parameters indicating parameters for application
8 programs loaded into the client computer memory;
9 user configuration parameters indicating settings for a user interface displayed at
10 the client computer; and
11 Simple Network Management Protocol (SNMP) configuration parameters.

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1 8. The method of claim 1, further comprising:
2 launching a setup program from the removable storage unit during a power on
3 when the client computer has not previously been configured;
4 receiving settings for network configuration parameters indicating a network
5 address for the client computer through the setup program;
6 receiving operating system configuration parameters for an operating system
7 kernel to load into the client computer memory through the setup program; and
8 storing the network and operating system configuration parameters received
9 through the setup program in the non-volatile storage unit.

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1 9. The method of claim 8, further comprising launching a configuration
2 program from the setup program to receive application configuration parameters for
3 application programs to load into the client computer memory and user interface
4 configuration parameters.

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1 10. The method of claim 1, further performing beginning an initialization
2 routine after a power on event, wherein if the client computer was previously configured,
3 during the initialization performing:
4 loading network configuration parameters stored in the non-volatile storage unit
5 indicating a network address for the client computer to use; and
6 loading operating system configuration parameters when loading an operating
7 system kernel.

1 ¹²
2 X1. The method of claim 10, wherein the operating system is loaded from the
removable storage unit interfacing with the client computer.

1 ¹³
2 X2. The method of claim 10, wherein the operating system configuration
parameters indicate a remote server on the network including the operating system kernel,
further comprising during the initialization:
4 downloading the operating system kernel from the remote server indicated in the
5 operating system configuration parameters; and
6 loading the downloaded operating system kernel into the client computer.
rule 1.126

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2 X3. The method of claim 10, further comprising:
3 loading at least one application program indicated in the application configuration
parameters into the memory of the client computer.

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2 X4. The method of claim 13, further comprising:
3 accessing the at least one application program from a remote server over the
network or from the removable storage unit interfacing with the client computer, wherein
4 the accessed at least one application program is loaded into the client computer memory.

1 ¹⁶
2 X5. A system for configuring a client computer connected to a network, wherein
3 a remote computer is capable of communicating with the client computer over the
network, comprising:
4 a non-volatile storage unit;
5 a processor capable of accessing the non-volatile storage unit;
6 a computer readable medium including program code accessible to the processor,
7 wherein the processor executes the program code to perform:
8 (i) storing sets of configuration parameters in the non-volatile storage unit,
9 wherein the sets of configuration parameters instruct at least one program how to

10 initialize operational parameters and load programs into the client computer
11 memory during a power on; and
12 (ii) for each set of configuration parameters, storing a token in the non-
13 volatile storage unit indicating access rights to the set of configuration parameters,
14 wherein the token specifies whether management entities running on the remote
15 computer and client computer can access the set of configuration parameters for
16 that token.

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1 16. The system of claim 15, wherein each token specifies at least one
2 management entity, wherein only the management entity specified in the token has access
3 rights to the set of configuration parameters associated with that token, wherein at least
4 one token specifies one management entity at the client computer and at least one other
5 token specifies one management entity at the remote computer.

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1 17. The system of claim 15, wherein the at least one program code includes a
2 boot program, operating system or application program.

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1 18. The system of claim 15, wherein the client computer and remote computer
2 are capable of modifying the access rights specified in the token if the access rights
3 permit the client computer or remote computer requesting the modification write access
4 to the set of configuration parameters, wherein the program code is further capable of
5 causing the client computer processor to perform:

6 storing modifications in the non-volatile storage unit from the client computer or
7 remote computer to the access rights specified in the token for one set of configuration
8 parameters, wherein the modifications are made to the token if the client computer or
9 remote computer initiating the modifications is indicated in the access writes as having
10 write access.

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2 19. The system of claim 18, wherein the access rights in one token specify one
3 application program in the remote computer or client program that can modify the set of
3 configuration parameters.

1 ²¹
2 20. The system of claim 18, wherein the program code is further capable of
3 causing the client computer processor to perform:
4 launching a configuration program from a removable storage unit interfaced with
5 the client computer, wherein the configuration program is used to modify sets of
5 configuration parameters in the non-volatile storage unit.

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1 ²²
2 21. The system of claim 20, wherein the program code is further capable of
2 causing the client computer processor to perform:
3 launching a setup program from the removable storage unit during a power on
4 when the client computer has not previously been configured;
5 receiving settings for at least one set of configuration parameters via the setup
6 program; and
7 storing the received settings in the non-volatile storage unit, wherein the
8 configuration program is launched to provide an interface to allow the user to set
9 configuration parameters for other sets of configuration parameters.

1 ²³
2 22. The system of claim 15, wherein the sets of configuration associated with
2 the tokens include at least one of the following sets of configuration parameters:
3 network configuration parameters indicating network settings the client computer
4 uses to communicate over the network;
5 operating system configuration parameters for an operating system loaded into the
6 client computer memory;
7 application configuration parameters indicating parameters for application
8 programs loaded into the client computer memory;

9 user configuration parameters indicating settings for a user interface displayed at
10 the client computer; and
11 Simple Network Management Protocol (SNMP) configuration parameters.

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1 23. The system of claim 15, wherein the program code is further capable of
2 causing the client computer processor to perform:
3 launching a setup program from the removable storage unit during a power on
4 when the client computer has not previously been configured;
5 receiving settings for network configuration parameters indicating a network
6 address for the client computer through the setup program;
7 receiving operating system configuration parameters for an operating system
8 kernel to load into the client computer memory through the setup program; and
9 storing the network and operating system configuration parameters received
10 through the setup program in the non-volatile storage unit.

Rule 1.12b

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1 24. The system of claim 23, wherein the program code is further capable of
2 causing the client computer processor to perform launching a configuration program from
3 the setup program to receive application configuration parameters for application
4 programs to load into the client computer memory and user interface configuration
5 parameters.

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1 25. The system of claim 15, wherein the program code is further capable of
2 causing the client computer processor to perform beginning an initialization routine after
3 a power on event, wherein if the client computer was previously configured, during the
4 initialization performing:
5 loading network configuration parameters stored in the non-volatile storage unit
6 indicating a network address for the client computer to use; and

7 loading operating system configuration parameters when loading an operating
8 system kernel.

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1 26. The system of claim 25, wherein the operating system is loaded from the
2 removable storage unit interfacing with the client computer.

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1 27. The system of claim 25, wherein the operating system configuration
2 parameters indicate a remote server on the network including the operating system kernel,
3 further wherein the program code is further capable of causing the client computer
4 processor to perform during the initialization:

5 downloading the operating system kernel from the remote server indicated in the
6 operating system configuration parameters; and
7 loading the downloaded operating system kernel into the client computer.

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1 28. The system of claim 25, wherein the program code is further capable of
2 causing the client computer processor to perform:
3 loading at least one application program indicated in the application configuration
4 parameters into the memory of the client computer.

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1 29. The system of claim 28, wherein the program code is further capable of
2 causing the client computer processor to perform:
3 accessing the at least one application program from a remote server over the
4 network or from the removable storage unit interfacing with the client computer, wherein
5 the accessed at least one application program is loaded into the client computer memory.

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1 30. A program of configuring a client computer connected to a network,
2 wherein a remote computer is capable of communicating with the client computer over

3 the network, wherein the program includes code embedded in a computer readable
4 medium capable of causing a processor to perform:
5 storing sets of configuration parameters in a non-volatile storage unit, wherein the
6 sets of configuration parameters instruct at least one program how to initialize operational
7 parameters and load programs into the client computer memory during a power on; and
8 for each set of configuration parameters, storing a token in the non-volatile
9 storage unit indicating access rights to the set of configuration parameters, wherein the
10 token specifies whether management entities running on the remote computer and client
11 computer can access the set of configuration parameters for that token.

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1 31. The program of claim 30, wherein each token specifies at least one
2 management entity, wherein only the management entity specified in the token has access
3 rights to the set of configuration parameters associated with that token, wherein at least
4 one token specifies one management entity at the client computer and at least one other
5 token specifies one management entity at the remote computer.

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1 32. The program of claim 30, wherein the at least one program is capable of
2 comprising a boot program, operating system or application program.

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1 33. The program of claim 30, wherein the client computer and remote
2 computer are capable of modifying the access rights specified in the token if the access
3 rights permit the client computer or remote computer requesting the modification write
4 access to the set of configuration parameters, wherein the program code is further capable
5 of causing the processor to perform:

6 storing modifications in the non-volatile storage unit from the client computer or
7 remote computer to the access rights specified in the token for one set of configuration
8 parameters, wherein the modifications are made to the token if the client computer or

9 remote computer initiating the modifications is indicated in the access writes as having
10 write access.

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1 34. The program of claim 33, wherein the access rights in one token specify
2 one application program in the remote computer or client program that can modify the set
3 of configuration parameters.

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1 35. The program of claim 30, wherein the program code is further capable of
2 causing the processor to perform:

3 launching a configuration program from a removable storage unit interfaced with
4 the client computer, wherein the configuration program is used to modify sets of
5 configuration parameters in the non-volatile storage unit.

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1 36. The program of claim 35, wherein the program code is further capable of
2 causing the processor to perform:

3 launching a setup program from the removable storage unit during a power on
4 when the client computer has not previously been configured;

5 receiving settings for at least one set of configuration parameters via the setup
6 program; and

7 storing the received settings in the non-volatile storage unit, wherein the
8 configuration program is launched to provide an interface to allow the user to set
9 configuration parameters for other sets of configuration parameters.

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1 37. The program of claim 30, wherein the sets of configuration associated with
2 the tokens include at least one of the following sets of configuration parameters:

3 network configuration parameters indicating network settings the client computer
4 uses to communicate over the network;

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5 operating system configuration parameters for an operating system loaded into the
6 client computer memory;
7 application configuration parameters indicating parameters for application
8 programs loaded into the client computer memory;
9 user configuration parameters indicating settings for a user interface displayed at
10 the client computer; and
11 Simple Network Management Protocol (SNMP) configuration parameters.

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1 38. The program of claim 30, wherein the program code is further capable of
2 causing the processor to perform:
3 launching a setup program from the removable storage unit during a power on
4 when the client computer has not previously been configured;
5 receiving settings for network configuration parameters indicating a network
6 address for the client computer through the setup program;
7 receiving operating system configuration parameters for an operating system
8 kernel to load into the client computer memory through the setup program; and
9 storing the network and operating system configuration parameters received
10 through the setup program in the non-volatile storage unit.

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1 39. The program of claim 38, wherein the program code is further capable of
2 causing the processor to perform launching a configuration program from the setup
3 program to receive application configuration parameters for application programs to load
4 into the client computer memory and user interface configuration parameters.

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1 40. The program of claim 30, wherein the program code is further capable of
2 causing the processor to perform beginning an initialization routine after a power on
3 event, wherein if the client computer was previously configured, during the initialization
4 performing:

5 loading network configuration parameters stored in the non-volatile storage unit
6 indicating a network address for the client computer to use; and
7 loading operating system configuration parameters when loading an operating
8 system kernel.

Rule 11.12
1 41. The program of claim 30, wherein the operating system is loaded from the
2 removable storage unit interfacing with the client computer.

1 42. The program of claim 40, wherein the operating system configuration
2 parameters indicate a remote server on the network including the operating system kernel,
3 wherein the program code is further capable of causing the processor to perform:
4 downloading the operating system kernel from the remote server indicated in the
5 operating system configuration parameters; and
6 loading the downloaded operating system kernel into the client computer.

1 43. The program of claim 30, wherein the program code is further capable of
2 causing the processor to perform:
3 loading at least one application program indicated in the application configuration
4 parameters into the memory of the client computer.

1 44. The program of claim 43, wherein the program code is further capable of
2 causing the processor to perform:
3 accessing the at least one application program from a remote server over the
4 network or from the removable storage unit interfacing with the client computer, wherein
5 the accessed at least one application program is loaded into the client computer memory.